METHOD AND APPARATUS FOR OPERATING AN AUTOMATED BIOMOLECULAR PREPARATION SYSTEM

ABSTRACT OF THE DISCLOSURE

A system automatically prepares and analyzes a macromolecule prepared from a complex liquid mixture. To prepare the macromolecule, a controller executing executable instructions, such as compiled software or firmware, operates a hydraulic subsystem in response to operational input, which may be interpreted by the executable instructions at run-time. To analyze the prepared macromolecule, an apparatus for capillary electrophoresis includes a liquid source, inlet chamber, capillary electrophoresis column, and controller that may operate under control of executable instructions and operational input in a similar manner. The system may require validation and approval by a regulatory body, such as the FDA. Based on the de-coupled configuration of the executable instructions and operational input, the system can be validated and approved with the executable instructions independent of the operational input, and vice-versa. A method for distributing the system based on this feature is also provided.